

CLAIMS

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1. Process for preparing a crosslinked polyolefin foam, characterized in that it comprises an essentially unidirectional expansion.

5 2. Process according to Claim 1, characterized in that it comprises the expansion of a product having substantially the shape of a sheet, the expansion being only in its thickness.

3. Process according to Claim 2, characterized in that it is carried out continuously.

10 4. Process according to one of Claims 1 to 3, characterized in that the unidirectional expansion is carried out by making a support adhere beforehand to one or both faces of the intermediate product to be expanded, these being perpendicular to the direction of the expansion.

15 5. Process according to Claim 4, characterized in that the adhesion to the support is promoted by a prior corona discharge operation.

6. Process according to one of Claims 1 to 3, characterized in that the unidirectional expansion is carried out by surface-crosslinking beforehand one or both faces of the intermediate product to be expanded, these being perpendicular to the direction of the expansion.

20 7. Process according to one of Claims 1 to 6, characterized in that the foam is obtained from a composition comprising at least 20% by weight of a polyethylene or of an essentially linear ethylene copolymer of density of between 0.80 and 0.96 g/cm³.

25 8. Process according to Claim 7, characterized in that the polyethylene or the ethylene copolymer is obtained by metallocene catalysis and has a density of at most 0.92 g/cm³.

30 9. Compliant crosslinked polyolefin foam obtained by implementing the process according to one of Claims 1 to 8.

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